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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

LIANG, GWEN

ART UNIT PAPER NUMBER

2172

DATE MAILED: 12/27/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/626,965

Applicant(s)

OHASHI, TADASHI

Examiner

GWEN LIANG

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 October 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 and 10 is/are rejected.
- 7) ☒ Claim(s) 9 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 July 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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DETAILED ACTION

1. This action is responsive to communications: Amendment A, filed on 10/22/02.

Applicant's arguments with respect to claims 1-4, 6-8 and 10 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 2, 7, 8 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sakayori et al., "Sakayori" (U.S. Patent No. 6,336,078), further in view of Hogan et al., "Hogan" (U.S. Patent No. 5,778,368), and further in view of Lyons ("The New Face of Artificial Intelligence").

With respect to claim 1, Sakayori discloses a component management system comprising:

a storage unit which stores a plurality of components which are necessary for the development, manufacture, and inspection of a product as a component data base, wherein said components constituting said product are at the same management level (col. 1 lines 17-18, "As one example, information of components to be used is registered in and managed using data base 132."); (Abstract, "A method, system and program for managing quality information of components comprises by inputting and storing quality information of an ordered component,

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inputting quality information of a delivered component, checking the quality information of the delivered component, updating the stored quality information in accordance with a check result, and transmitting the updated quality information to a shop that uses the component. The component delivered to the shop is maintained in a matched relationship with associated quality information.”); and

a server which manages the component data base stored in said storage unit (See Fig. 1); and

at least one client, connected to said server via a network, which can obtain required information from said storage unit via said network (See Fig. 2 for client/server communication through the network.); (col. 1 lines 23-26, “The data registered in the data base is searched from the terminals 133-1, 133-2, 133-3, and operators can obtain required information.”).

However Sakayori does not explicitly disclose components related to hardware and firmware; nor at least one client, which takes out a predetermined component from said storage unit via said network.

Hogan discloses a component management system comprising:

a storage unit which stores a plurality of components related to firmware which are necessary for the development, manufacture, and inspection of a product as a component data base (See for example: Abstract, “The Real-Time Embedded Software Repository Apparatus fully characterizes, evaluates, and reuses real-time embedded software that is placed or stored in a repository database. The Repository System comprises at least one Repository Client and at least one Repository Server and utilizes simulation and translational techniques to allow Real Time Embedded Software (RTES) to be re-used, played, and evaluated on various desktop

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development environments or target operating environments.”, wherein “embedded software” is equivalent to firmware; col. 4 lines 7-10, “It is therefore an object of the present invention to provide a Repository System to allow re-use of real-time embedded software.”, wherein the embedded software is equivalent to the firmware; col. 5 line 58 – col. 6 line 7, “The present invention also utilizes the simulation and translational techniques similar in function to that which is disclosed in Goettelmann et al. (as described above), and other known methods, to allow RTES to be re-used and to be played and evaluated on various desktop development environments or target operating environments, thereby allowing the developer to view operational aspects of the real-time applications. The system of the present invention supports real-time embedded software that utilizes real-time operating systems (RTOS) such as MXP, PSOS, VxWorks, or SPOX. The present invention thereby allows a software engineer to fully characterize a real-time embedded software module, software sub-system or software system in a manner that facilitates its re-use as well as achieves visibility of the software module. The software module, software sub-system or software system can provide added value to an entire organization.”; col. 7 lines 25-27, “Real-time embedded software. This is software that is intended to be executed on an embedded processor system.”; col. 8 lines 43-49, “The Repositories 3, 4, 5, and 6 provide visibility into RTES stored in the Repository database, which, in turn, provide users with the ability to re-use real-time embedded Components (Components) or Application Frameworks (Frameworks) . The Component can be used as a basic building block to create software products that can be demonstrated and tested on the desktop.”); and

at least one client, which takes out a predetermined component from said storage unit via said network (Abstract, “The Real-Time Embedded Software Repository Apparatus fully

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characterizes, evaluates, and reuses real-time embedded software that is placed or stored in a repository database. The Repository System comprises at least one Repository Client and at least one Repository Server and utilizes simulation and translational techniques to allow Real Time Embedded Software (RTES) to be re-used, played, and evaluated on various desktop development environments or target operating environments.”; col. 4 line 66 – col. 5 line 2, “It is an additional object of the present invention to provide a Repository Station and Repository Client Helper Applications for checking-in or checking-out Repository Units from the Repository database.”, wherein the process of checking-out process Repository Units is analogous to a process wherein a client takes out components ; col. 8 line 59 – line 6, “Several Repository Clients and Repository Stations may access several Repositories simultaneously. In this context, several Repository Clients and Repository Stations may login to several off-site Repositories or local Repositories simultaneously to access, and thereafter display queried results in much the same concept as PC's MAC's, and UNIX workstations can all access Web servers on the Internet. The Repository Server then downloads the results on to the Repository Clients and Repository Stations and, after further instruction from the user, downloads or checks-out, i.e., unpackages, the requested Repository Units--via FTP or HTTP mechanisms--to the user's desktop. The Repository System further provides platform independent access to Components and Frameworks from a collection of distributed Repository Servers.”).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate components related to firmware as disclosed by Hogan in a component database as disclosed in Sakayori to provide a Repository System to allow re-use of

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real-time embedded software (col. 4 lines 7-9). One of ordinary skill in the art would be motivated to make the aforementioned combination with reasonable expectation of success.

However the combination of Sakayori and Hogan does not explicitly disclose components related to hardware.

Lyons discloses a component management system comprising components related to hardware (Abstract, "The technology allows customers to choose the features they want, from speed to hard drive space. PcORder.com's web site allows customers to view a database of over 600,000 computer parts from over 1,000 manufactures to see stock availability and price.")

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate components related to hardware as disclosed by Lyons in a component database as disclosed in the combination of Sakayori and Hogan to allow customers to choose the features they want, from speed to hard drive space. (Abstract). One of ordinary skill in the art would be motivated to make the aforementioned combination with reasonable expectation of success.

Claim 2 is rejected for the reasons set forth hereinabove for claim 1 and furthermore Hogan discloses a component management device comprising a management unit which manages the component data base stored in said storage unit and which provides a control when a client takes out a predetermined component from said storage unit via a network (col. 10, lines 46-49, "The Repository ... Repository Servers."; see Figures 1 and 2 for network connection.).

Claim 7 is rejected for the reasons set forth hereinabove for claim 2 and furthermore Sakayori discloses a component management device wherein

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said management unit sends a notice of revision to said client ... (col. 1 lines 20-23, "When a change in a component occurs due to a design change, past records of specification changes and so on are registered as quality information in the data base for management."); (Abstract, "...updating the stored quality information in accordance with a check result, and transmitting the updated quality information to a shop that uses the component.").

and sends a notice of new registration to said client ..., and wherein said client takes out said component ... (col. 11 lines 29-48, "Information indicating that the part "d" is replaced by "d-1" and the unit "D" is replaced by "D-1" using the new part arrives via data bus 991 and is registered as quality information in a server data base 903. Updating of information in the data bases 911 and 903 is processed under control of the data update module 1602 (FIG. 16). When the quality information in the data base is changed, the data transfer module 1605 (FIG. 16, referred to as a resident process A hereinafter) in the server 901 is started up, whereby a transfer process of the quality information begins (such that the quality information is successively transferred to the queue 950) (processing 1, 2, 3, 4). The resident process A extracts the data to be transferred from the data base 903. Then, the resident process A searches and identifies the IP address, password, and user ID of the processing area at the transfer destination from the configuration management table 970. In the configuration management tables 970 and 980, the order issuing/receiving relationship between the shops is defined by the shop order issuing/receiving management module 1607 (FIG. 16). [It is inherent that the client must order a component before the order issuing/receiving management module can respond and for the client to issue an order, it is again inherent that a notice of a new component's registration is received.].").

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Claim 8 is rejected for the reasons set forth hereinabove for claim 2 and furthermore Sakayori discloses a component management device wherein said management unit conducts communications related to the development consignment of said product with a development maker side client ... (col. 2 lines 50-61, "For example, in the case of carrying out a quality inspection of the part "d-1" that has been substituted for the part "d" due to a design change, or in the case of carrying out a performance test of the unit "D-1" using the part "d-1", persons engaged in departments of design [analogous to a development maker side client], quality management, etc. may need to know about the arrival of the changed substance at an appropriate point in time. Conventionally, those persons would only become aware of the arrival of the changed substance upon receiving a notice [communications] from the part receiving department or by searching a data base to determine whether the changed substance has been delivered.").

Claim 10 is rejected on grounds corresponding to the reasons given above for claim 2.

4. Claims 3, 4, 6, are rejected under 35 U.S.C. 103(a) as being unpatentable over Sakayori et al., "Sakayori " (U.S. Patent No. 6,336,078), further in view of Hogan et al., "Hogan" (U.S. Patent No. 5,778,368), further in view of Lyons ("The New Face of Artificial Intelligence"). and further in view of Kavanagh et al., "Kavanagh" (U.S. Patent No. 5,838,965).

Claim 3 is rejected for the reasons set forth hereinabove for claim 2. However the combination of Sakayori, Hogan and Lyons does not explicitly disclose components constitute a hierarchical structure.

Kavanagh discloses a hierarchical structure ... (Abstract, "A database management system is disclosed having an object oriented representation of information describing

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characteristics of instances organized in a hierarchical structure that may be logically represented as a tree structure. The hierarchical structure includes a parent -child/class-subclass structure.”); (col. 65 lines 4-11, “In step 631, the user navigates to and selects a class 1225 and chooses thesaurus entry editing 1226 from a drop down menu available by use of the right mouse button. In step 632, the thesaurus list is obtained from metadata for the class 1225 through the dynamic class manager 134. In step 633 the user edits the thesaurus using the thesaurus editor 1227 shown in FIG. 177 before returning to the retrieve parts window 1228.”); (col. 65 lines 35-37, “In this way, the user can easily reuse thesaurus entries to create patterns that match similar forms of text that may be found in part descriptions for parts of a class. “); (col. 4 lines 32-37, “The present invention may be used to provide a part management system which has a number of advantageous features. A system in accordance with the present invention provides a tool for design engineers which enables them to intuitively, definitively, and virtually instantaneously find a released part ...”); (col. 4 lines 49-63. “Part classes, sub-classes, part characteristics such as shape, material, and dimensions, among others [equivalent to meta-information], fit very well within the object oriented environment of the present invention. Parts are treated as objects within a parts family or "schema". The present invention uses attribute searches, which offer decided advantages over generic key-word searches. The incomplete search problems associated with key-word matching which are described above with reference to Table 1 may be solved when the same data is restructured as parametric attributes. A parametric attribute description consists of (1) reducing all terminology to some standard form, (2) describing each term as some value of an attribute related to an object or subclass, and (3) ordering the set of attributes of the object.”).

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It would have been obvious to one having ordinary skill in the art at the time the invention was made to adopt a hierarchical structure and meta-information as disclosed by Kavanagh in a component database as disclosed in the combination of Sakayori, Hogan and Lyons (col. 1 lines 8-12). The database is structured so that when an item does not have a value, nothing is stored. Therefore, memory space is not wasted storing null values, and search speed is improved.

Claim 4 is rejected for the reasons set forth hereinabove for claim 2. However Sakayori does not explicitly disclose information comprises taking-out limiting information related to the permission/non-permission of taking-out for each component ...

Kavanagh teaches taking-out limiting information related to the permission/non-permission of taking-out for each component, and wherein said client takes out the applicable component based on the taking-out limiting information only when said client gets the permission (col.4 lines 41-43 “. Through the use of an object oriented knowledge base, the present invention can make access to part data intuitive, instantaneous, definitive, and can encompass all parts “); (col. 15 lines 22-31, “A login procedure is initiated by a user logging into the retriever 130, as depicted in step 150 in FIG. 4A. The user's name and password are sent to the registry server 141, as shown in 151. In step 152, the user name and password are validated by the registry server 141. If the user name and password are not valid, the flow returns to step 150 and the user must try again. If the name and password are valid, the flow continues to step 153 in which the retriever 130 asks for an appropriate software license from the license manager 142.”).

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It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize taking-out limiting information related to permission as disclosed by Kavanagh to access the component data as disclosed in the combination of Sakayori, Hogan and Lyons as a means to control unauthorized user access to the system (col. 4 line 29).

Claim 6 is rejected on grounds corresponding to the reasons given above for claim 3.

5. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sakayori et al., "Sakayori " (U.S. Patent No. 6,336,078), further in view of Hogan et al., "Hogan" (U.S. Patent No. 5,778,368), further in view of Lyons ("The New Face of Artificial Intelligence"), and further in view of Lee (U.S. Patent No. 4,610,000).

Claim 5 is rejected for the reasons set forth hereinabove for claim 2. However the combination of Sakayori, Hogan and Lyons does not explicitly disclose patch information comprised in a component, ... wherein said client performs the patch processing to the applicable firmware ...

Lee teaches patch information comprised in a component, ... wherein said client performs the patch processing to the applicable firmware ... (col. 1 lines 30-34, "A feature of the invention is that the ROM [firmware] patch functions may be performed without the use of special control pins or high voltages, but through the use of sequences of addresses within the ordinary address range.").

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the ROM [firmware] patch process as disclosed by Lee to into the device component update process as disclosed in the combination of Sakayori, Hogan and

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Lyons so that ROM [equivalent to firmware] may be patched and repatched so that errors may be corrected by an application system designer (col. 1 lines 35-37).

Allowable Subject Matter

6. Claim 9 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. The following is a statement of reasons for the indication of allowable subject matter:

As to dependent claim 9, the prior art of record does not anticipate nor suggest any component management device wherein a management unit conducts communications for getting the permission of quotation of a catalog of parts constituting a product with an author side client placed in the author side of the catalog and registers the catalog as a data base in said storage unit when it gets the permission, in the specific combination as recited in claim 9.

(6.2)

Response to Arguments

Applicant's arguments with respect to claims 1-4, 6-8 and 10 have been considered but are moot in view of the new ground(s) of rejection.

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Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to GWEN LIANG whose telephone number is 703-305-3985. The examiner can normally be reached on 9:00 A.M. - 5:30 P.M. Monday - Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, KIM VU can be reached on (703) 305-4393. The fax phone numbers for the organization where this application or proceeding is assigned are 703-746-7239 for regular communications and 703-746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

G.L.
December 16, 2002


JEAN M. CORRIELUS
PRIMARY EXAMINER

Attachment for PTO-948 (Rev. 03/01, or earlier)
6/18/01

The below text replaces the pre-printed text under the heading, "Information on How to Effect Drawing Changes," on the back of the PTO-948 (Rev. 03/01, or earlier) form.

INFORMATION ON HOW TO EFFECT DRAWING CHANGES

1. Correction of Informalities -- 37 CFR 1.85

New corrected drawings must be filed with the changes **incorporated** therein. Identifying indicia, if provided, should include the title of the invention, inventor's name, and application number, or docket number (if any) if an application number has not been assigned to the application. If this information is provided, it must be placed on the front of each sheet and centered within the top margin. If corrected drawings are required in a Notice of Allowability (PTOL-37), the new drawings **MUST** be filed within the **THREE MONTH** shortened statutory period set for reply in the Notice of Allowability. Extensions of time may **NOT** be obtained under the provisions of 37 CFR 1.136(a) or (b) for filing the corrected drawings after the mailing of a Notice of Allowability. The drawings should be filed as a separate paper with a transmittal letter addressed to the Official Draftsperson.

2. Corrections other than Informalities Noted by Draftsperson on form PTO-948.

All changes to the drawings, other than informalities noted by the Draftsperson, **MUST** be made in the same manner as above except that, normally, a highlighted (preferably red ink) sketch of the changes to be incorporated into the new drawings **MUST** be approved by the examiner before the application will be allowed. No changes will be permitted to be made, other than correction of informalities, unless the examiner has approved the proposed changes.

Timing of Corrections

Applicant is required to submit the drawing corrections within the time period set in the attached Office communication. See 37 CFR 1.85(a).

Failure to take corrective action within the set period will result in **ABANDONMENT** of the application.